

**BEFORE THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF APPEALS AND INTERFERENCES**

In re Patent Application of:)	
)	
Richard E. Hunter et al.)	Examiner: Davis D. Hwu
)	
Serial No.: 09/846,994)	Group Art Unit: 3752
)	
Filed: May 1, 2001)	Confirmation No.: 3915
)	
For: <i>Rotor-Type Sprinkler with</i>)	
<i>Turbine Over-Spin Prevention</i>)	

APPELLANT'S BRIEF

BOARD OF PATENT APPEALS & INTERFERENCES
Director for Patents and Trademarks
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

This brief is submitted pursuant to 37 C.F.R. Sec. 41.37. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed September 29, 2006, declining to withdraw the rejection of Claim 1, the lone remaining claim presently under consideration.

The subject patent application has now been pending for more than five (5) years. Accordingly, this application, including all proceedings before the examiner and all appellate proceedings within the USPTO, are to be handled on an expedited basis because the case is effectively a *special* status case. The MPEP §707.02 and MPEP §708.01(1).

I. Real Party in Interest

The real party in interest is Hunter Industries, Inc., a Delaware corporation, the owner by assignment of all rights to the subject invention

II. Related Proceedings Including Appeals and Interferences

There are no prior and/or pending applications, patents, appeals, interferences or judicial proceedings known to appellants, their legal representatives or assignee which may be related to, directly affect, or be directly affected by, or have a bearing on, the Board's decision in this appeal.

III. Status of the Claims

Claim 1 is the lone pending claim in this application presently on appeal. All of the remaining have either been canceled or withdrawn from consideration. The status of each claim is as follows:

Claim 1	pending
Claim 2	withdrawn
Claim 3	canceled
Claim 4	withdrawn
Claim 5	withdrawn
Claim 6	canceled
Claim 7	withdrawn
Claim 8	withdrawn
Claim 9	canceled
Claim 10	withdrawn
Claim 11	withdrawn
Claim 12	withdrawn
Claim 13	withdrawn
Claim 14	withdrawn
Claim 15	withdrawn
Claim 16	canceled
Claim 17	withdrawn
Claim 18	canceled

Claim 19	withdrawn
Claim 20	canceled
Claim 21	withdrawn
Claim 22	withdrawn
Claim 23	withdrawn
Claim 24	withdrawn
Claim 25	withdrawn
Claim 26	withdrawn
Claim 27	withdrawn
Claim 28	withdrawn
Claim 29	withdrawn
Claim 30	withdrawn
Claim 31	canceled
Claim 32	canceled
Claim 33	canceled
Claim 34	canceled
Claim 35	withdrawn
Claim 36	withdrawn
Claim 37	withdrawn
Claim 38	withdrawn
Claim 39	withdrawn
Claim 40	withdrawn

IV. Status of Amendments

No amendments have been filed subsequent to the final Office Action mailed June 14, 2006.

V. Summary of the Claimed Subject Matter

As explained in the background section of the specification (page 2, lines 4 - 20), when valve-in-head sprinklers or “rotors” installed in golf courses are winterized, pressurized air is used to remove the water from the buried pipes and sprinklers so that it will not freeze and damage these parts of the irrigation system. During this winterizing operation, the pressurized air spins the turbine of a rotor at a much higher rate than when it is driven solely by pressurized water. In the absence of water, which acts as a lubricant, the turbine can over-spin, causing plastic bearings to melt, turbine shafts to break, and/or damage to related nozzle drive components. Similar problems can occur when golf course irrigation systems are re-activated in the Spring when surge conditions are created by a mixture of high pressure water and air.

Referring to Fig. 3 of the drawings, (reproduced at the top of the following page for convenience) and page 6, line 16 through page 7, line 4 of the specification, an irrigation sprinkler in accordance with an embodiment of Claim 1 is illustrated. In accordance with the embodiment of Fig. 3, the sprinkler 60 includes a tubular riser 62, a turbine 64 connected to a gear train reduction 66, and a valve 68 for selectively re-directing fluid around the turbine 64 to prevent it from over-spinning. A nozzle (not illustrated in Fig. 3) is mounted for rotation about the upper end of the riser 62 via the turbine 64, gear train reduction 66 and a reversing mechanism (not illustrated in Fig. 3).

The valve 68 prevents over-spinning of the turbine 64 by selectively re-directing the pressurized fluid around the turbine 64 when the pressurized fluid is air or a mixture of water and air. The normal flow of water through the center of the valve 68 is illustrated diagrammatically in Fig. 3 by dashed arrows. The redirected flow of air or a mixture of water and air is illustrated diagrammatically in Fig. 3 by twin solid arrows.

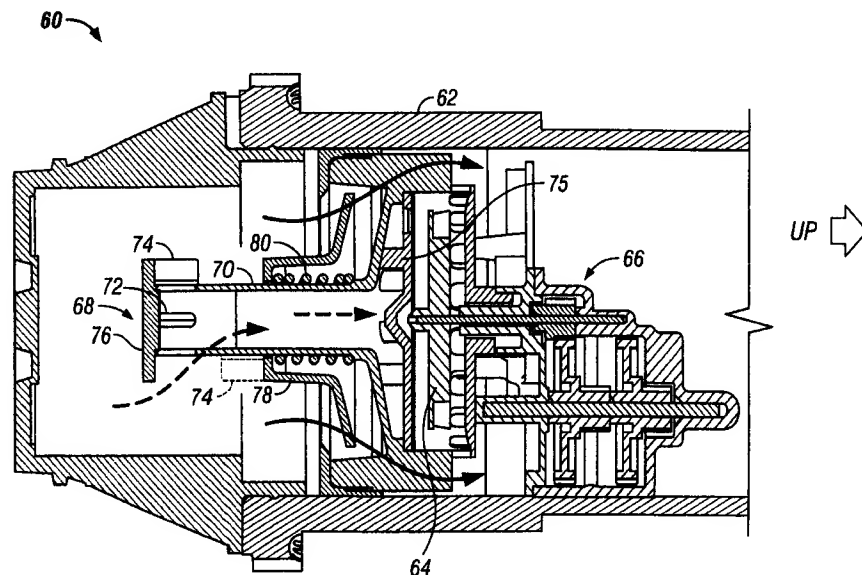


FIG. 3

VI. Grounds of Rejection to be Reviewed on Appeal

Claim 1 stands rejected for obviousness over U.S. Patent No. 5,375,768 of Clark.

VII. Argument

While Claim 1 technically stands rejected for alleged obviousness, it is difficult to determine from the explanation of the rejection in the final Office Action mailed June 14, 2006 whether the examiner intended to reject Claim 1 for alleged anticipation or for alleged obviousness.

On May 2, 2006 Appellants filed a Rule 132 Declaration of Michael L. Clark along with their Request for Reconsideration. This preceded the final Office Action of June 14, 2006. A copy of the Rule 132 Declaration is provided in the Evidence appendix hereto. In that declaration, Michael L. Clark, the inventor of the cited '768 patent that is lone basis of the obviousness rejection, states that the sprinkler disclosed in said '768 patent does not include a valve as called for in pending Claim 1.

Assuming, for the sake of argument, that the examiner intended to reject Claim 1 as amended for anticipation over the '768 Clark patent, the examiner is ignoring the Rule 132 Declaration of

Michael L. Clark in which he states, under oath, that the sprinkler disclosed in *his very own* '768 Clark patent "does not include a valve that prevents, by selectively re-directing the pressurized fluid around the turbine, over-spinning of the turbine when the pressurized fluid is air, or a mixture of water and air." (See paragraph 8, declaration of Clark executed April 12, 2006). He goes on to state in paragraph 9 of his declaration that "[t]he valve included in the sprinkler disclosed in U.S. Patent No. 5,375,768 is held closed with a bias spring. With the valve in the closed position, there is no flow path for either air or water, except through the inlet that feeds the turbine." Mr. Clark has worked for Hunter Industries, Inc. for twenty-five years and has been granted thirteen patents on irrigation related inventions. There can be no doubt that Mr. Clark is an expert in regard to irrigation sprinklers and that he is intimately familiar with the design and operation of the sprinkler disclosed in his own '768 Clark patent.

The examiner's statement, on page 3 of the June 14, 2006 Office Action, that the valve 62 of the '768 Clark patent is "fully capable of carrying out the same function regardless of whether the fluid is water, air or a combination of both" is fully rebutted by the Michael L. Clark declaration previously filed. The examiner concedes, in the final Office Action, that the sprinkler of the '768 Clark patent is disclosed as only operating with water, and not air or a mixture of water and air. In order for there to be anticipation, the '768 patent must disclose each element of the claimed invention arranged as set forth in the claim. *Lindermann Maschinefabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984). Moreover, under 35 U.S.C. Sec. 102, anticipation requires that the prior art reference be enabling, thus placing the allegedly disclosed subject matter in the possession of the public. *Akzo N.V. v. United States ITC*, 808 F.2d 1471, 1 USPQ 2d 1241 (Fed. Cir. 1986). Clearly the '768 Clark patent does not anticipate Claim 1.

Appellants will now turn to the stated obviousness rejection of Claim 1 over the '768 Clark patent. The examiner's reliance on Section 103 is a tacit admission that there are differences between the sprinkler of Claim 1 and that disclosed in the '768 Clark patent. Making an assessment of the differences between the prior art and the claimed subject matter under Section 103 specifically requires consideration of the claimed invention "as a whole." *Ruiz v. A.B.Chance Co.*, 357 F.3d

1270, 1275 (Fed. Cir. 2004). Inventions are typically new combinations of existing principles or features. *Env'tl. Designs Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 (Fed. Cir. 1983). Thus the “as a whole” requirement of Section 103 is very important, otherwise an obviousness assessment might simply break a claimed invention into its component parts, and then find the individual components in the prior art. Such an assessment, using the inventor’s claim as a road map, amounts to impermissible hindsight reconstruction. This improper method of determining obviousness would discount the value of combining various existing features or principles in a new way to achieve a new and useful result - which is often the essence of valuable innovation.

To guard against hindsight reconstruction, in order to establish a *prima facie* case of obviousness during *ex parte* examination of a patent application pending in the USPTO, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references when combined must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In the final Office Action of June 14, 2006, the examiner in effect states that obviousness rejection based on the '768 Clark patent does not require any modification of the sprinkler disclosed in that patent. The examiner has not rejected Claim 1 for anticipation over the '768 Clark patent. Accordingly, the rejection is fundamentally flawed. If the rejection is truly an obviousness rejection, then the examiner must state what modifications are necessary to transform the sprinkler of the '768 Clark patent into the sprinkler of Claim 1 and what teaching, suggestion or motivation existed at the time Appellants' invention was made to make such modifications. The Notice of Panel Decision from Pre-Appeal Brief Review mailed September 29, 2006 does not provide any further insight into the basis for the examiner’s obviousness rejection.

VIII. Conclusion

It is submitted that for the reasons pointed out above, Claim 1 is patentable over the '768 Clark patent. Accordingly, the Examiner should be reversed.

This application has been pending since May 1, 2001, and it has now been subject to eight (8) office actions. The result of this appeal should be a notice of allowance, not a new prior art search, followed by new rejections.

This Brief is being filed via the USPTO electronic filing system (EFS) and the \$500 Brief fee is being paid electronically at the same time. Please charge any deficit or credit any excess to Deposit Account No. 50-0626.

Dated: October 25, 2006

Respectfully submitted,



By: Michael H. Jester
Attorney for Appellants
Registration No. 28,022

Claims Appendix

1. A sprinkler, comprising:
 - a riser for receiving a pressurized fluid;
 - a nozzle;
 - means for mounting the nozzle at an upper end of the riser for rotation about an axis;
 - a turbine mounted for rotation inside the riser;
 - drive means for connecting the turbine to the nozzle so that rotation of the turbine by the pressurized fluid will rotate the nozzle; and
 - a valve that prevents by selectively re-directing the pressurized fluid around the turbine over-spinning of the turbine when the pressurized fluid is air or a mixture of water and air.

Evidence Appendix

A copy of the DECLARATION OF MICHAEL L. CLARK under 37 C.F.R. Sec. 1.132 is attached hereto. This declaration was filed on May 2, 2006 and was referenced in Appellants' Request for Reconsideration filed on that same day, and in Appellants' Reasons in Support of Pre-Appeal Brief Request for Review filed August 15, 2006.

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DECLARATION OF MICHAEL L. CLARK UNDER 37 CFR §1.132

COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22231-1450

Dear Sir:

I, Michael L. Clark, hereby declare as follows:

1. I am a U.S. citizen, over the age of eighteen years and competent to make this declaration.
2. Unless otherwise indicated, all statements made herein are based on personal knowledge.
3. I am currently employed by Hunter Industries, Inc. (hereinafter "Hunter"), the assignee of the above-captioned pending U.S. patent application.
4. I have been employed by Hunter for the past twenty-five years.
5. My current position at Hunter is Research Lab Manager.
6. During my employment at Hunter, I have regularly designed sprinklers.
7. I have been granted thirteen (13) patents on irrigation related inventions, including U.S. Patent No. 5,375,768 entitled "Multiple Range Variable Speed Turbine" granted December 27, 1994.
8. The sprinkler disclosed in U.S. Patent No. 5,375,768 does not include a valve that prevents, by selectively re-directing the pressurized fluid around the turbine, over-spinning of the turbine when the pressurized fluid is air, or a mixture of water and air.

9. The valve included in the sprinkler disclosed in U.S. Patent No. 5,375,768 is held closed with a bias spring. With the valve in the closed position, there is no flow path for either air or water, except through the inlet that feeds the turbine.
10. In the sprinkler disclosed in U.S. Patent No. 5,375,768, the valve will open as the pressure delta across the valve exceeds the spring force. The valve actually forces fluid to the turbine when the valve is closed and will continue to bias fluid to the turbine as the valve opens.
11. The valve of the sprinkler disclosed in U.S. Patent No. 5,375,768 includes a small throttling blade that enters the inlet to the turbine as the valve opens. This blade is designed to meter water only. The size of this blade would have little impact on the velocity of air.
12. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

4/12/2000
Date

By: Michael L. Clark
Michael L. Clark

Related Proceedings Appendix

(None)